

Atty Dkt: IDF 1503
(4000-02900)

Patent

REMARKS

Claims 1-12 are currently pending in this application. By the office action of May 14, 2004, Claims 1-12 were rejected under 35 U.S.C. §103 as being unpatentable over Shani US Patent 6,023,563 in view of McIntyre US Patent 6,381,218. The Applicant respectfully traverses these rejections. Reconsideration of Claims 1-12 is requested.

The office action indicates some confusion on the meaning of a customer premises telecommunications hub. The present specification clearly describes what such a hub is with reference to Fig. 1. In addition, the specification incorporates by reference at page 4, lines 18-21, US Patent 6,272,553 which discloses the customer premises telecommunications hub. These disclosures also discuss a telephone company central office, which is a term well known to those skilled in the telecommunications art. With these disclosures, it is clear that a customer premises telecommunications hub is an electronic telecommunications device located on a customer premises and is not "the physical location (building) of the switch 3-5, Fig. 3."

The office action states that the claims read on a brouter, a bridge-router, or a device that can do both bridging based on MAC addresses and routing based on IP addresses. The Examiner asserts that Shani discloses a brouter at col. 4, lines 55-60; col. 6, lines 8-15 and at col. 14, lines 55-56.

The disclosures of Shani cited by the Examiner are proof that Shani does not teach or suggest the present invention. At col. 4, lines 55-60, Shani expresses a NEED for "a device featuring the simplicity of a bridge and the potential to connect between networks like a router." At col. 6, lines 8-15, Shani again expresses a NEED for "a network device for transferring packets maintaining the simplicity of a bridge, and still

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having the capacity to span networks as a router." At col. 6, lines 13-15, Shani states that the Network Switch is the answer to these needs. The Shani specification then discloses the Network Switch or NS device. However, throughout the Shani disclosure, the Network Switch is always used in conjunction with both a bridge and one or more routers. That is, the NS does not replace the bridges and routers in the system. Shani uses the term "Bridge-router (Brouter)" only once in the specification. It is used at col. 14, lines 55-56 to indicate that the router 2, in Fig. 3, may operate as a Bridge-router (Brouter). This is in Example 7, in which the NS attempts to bypass the router 2, and the attempt is indicated to result in a failure unless the router 2 is able to operate as a bridge. Thus the NS must have both bridges and routers in order to function as described and does not replace both the bridges and routers.

The office action asserts that Shani teaches routing based on the MAC address of a port. Shani only teaches MAC addresses for the stations and routers, not for Ethernet ports. The NS of Shani could not make routing/bridging decisions based on port MAC addresses, because it does not use such addresses.

With reference to col. 6, lines 64-67, the Examiner asserts that the NS of Shani has both bridging means and routing means. This reference is in the Summary part of the Shani disclosure. A full reading of the Summary clearly shows that the NS sends packets to separate routers and bridges which then perform their known functions. The NS does not actually perform those functions. For example, at col. 7, lines 5-8, Shani teaches "configuring a plurality of networks to be connected by at least one network switch and at least one router. Data packets traverse the Network Switch which processes the packet if possible, or forwards it to the router."

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The office action indicates that Shani fails to particularly call for an interface to the Internet. The Examiner asserts that McIntyre teaches using a router and the Internet and that it would have been obvious to add an Internet interface to the Shani teachings.

The teachings of McIntyre are similar to the teachings of Shani. McIntyre provides a network device 202 which interconnects a computer system 100 to other devices such as other computers, printers, peripheral devices, or to network devices such as a router or brouter. McIntyre states that the device 208 may be a router that connects to an Internet provider. Thus the network device 202 does not perform both bridge and router functions, but instead requires a separate router for connection to an Internet provider.

As noted above, the present invention is an improvement to a customer premises telecommunications device known as an integrated services hub, ISH. Since the device is for use on a customer premises, it is important to reduce its cost, size and power consumption. The ISH uses a single CPU 50 to perform many telecommunication functions. In the present invention, the CPU 50 is provided with both bridge and router software to perform both functions. In addition, it is provided with a simple protocol for knowing when to perform one or both of those functions. That protocol is based on the use of MAC addresses assigned to Ethernet ports. The present invention is quite simple as compared to the systems disclosed by the Shani and McIntyre references.

In view of the substantial differences between the present invention and the applied references, the Applicant submits that claims 1-12 are allowable over those references. Allowance of claims 1-12 is requested.

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The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Applicants respectfully submit that the present application as amended is in condition for allowance. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, he is encouraged to telephone the undersigned at (972) 731-2288.

Respectfully submitted,
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